

REMARKS

This is intended as a full and complete response to the Final Office Action dated March 24, 2004, having a shortened statutory period for response set to expire on June 24, 2004. Please reconsider the claims pending in the application for reasons discussed below.

Claims 8, 10-19, 21, 24-30, and 32-36 remain pending in the application and are shown above. Claims 8, 10-19, 21, 24-30, and 32-36 stand rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Applicants propose amending claims 8, 11, 14, 19, 25, and 30 to clarify the claimed subject matter. Applicants propose canceling claims 12, 13, 24, and 32-34. Applicants submit that the changes proposed herein reduce the issues for appeal and do not introduce new matter. Support for selection of silica and a pH of 10 or greater can be found in Examples 2-7 at paragraphs [0035] to [0046] of the specification.

Claims 8, 10-19, 21, 24-30, and 32-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Homma, et al.* in view of WO 00/49647. Applicants note that WO 00/49647 is only available as prior art under 35 U.S.C. § 102(a) as of its publication date, August 24, 2000. Applicants are submitting a declaration under 37 C.F.R. § 1.131 in a separate paper. As shown in the declaration under 37 C.F.R. § 1.131, possession of the invention as presently claimed by Applicants occurred prior to the publication date of WO 00/49647, and therefore, WO 00/49647 cannot be relied upon by the Examiner as prior art. Applicants respectfully request withdrawal of the rejection of claims 8, 10-11, 14-19, 21, 25-30, and 35-36 over *Homma, et al.* in view of WO 00/49647.

Applicants further submit that claims 8, 10-11, 14-19, 21, 25-30, and 35-36 are patentable over *Homma, et al.* alone. *Homma, et al.* describes polishing an organic insulating film of a silicon compound containing 1% or more of organic components in the film with a slurry containing cerium oxide. While *Homma, et al.* states that the removal rate of the organic insulating film was about five times as high as that using a conventional slurry containing colloidal silica (column 7, lines 16-20), *Homma, et al.* does not teach or suggest polishing an organosilicate layer using a slurry including silica

dispersed in a solvent, wherein the slurry has a pH of about 10 or greater. *Homma, et al.* does not teach or suggest an appropriate pH of a silica containing slurry for polishing an organosilicate layer.

Therefore, *Homma, et al.* does not teach, show, or suggest a method for planarizing an organosilicate layer, comprising positioning a substrate having an organosilicate layer thereon in a polishing system, providing a slurry including silica as an abrasive material dispersed in a solvent to the polishing system, wherein the slurry has a pH of about 10 or greater, and polishing the organosilicate layer using the slurry, as recited in amended claim 8. Applicants respectfully request withdrawal of the rejection of claim 8 and of claims 10, 11, and 15-18, which depend thereon.

Regarding claim 19, Applicants submit that *Homma, et al.* does not teach or suggest polishing an organosilicate layer with a slurry including potassium hydroxide. While *Homma, et al.* describes polishing SiO₂ with a slurry containing silica and KOH, *Homma, et al.* teaches polishing an organic insulating film with a slurry containing cerium oxide and a pH adjusting agent such as ammonia, waterholding hydrazine or an amine containing neither Na nor K, or an acid. As *Homma, et al.* describes polishing an organic insulating film with a slurry containing a compound that does not include potassium, Applicants submit that *Homma, et al.* does not motivate or suggest polishing an organosilicate layer with a slurry including KOH.

Therefore, *Homma, et al.* does not teach, show, or suggest a method for fabricating a device, comprising providing a substrate having conductive features formed thereon with an organosilicate layer deposited between and on top of the conductive features, positioning the substrate in a polishing system, providing a slurry including silica as an abrasive material dispersed in a solvent and potassium hydroxide (KOH) to the polishing system, wherein the slurry has a pH of about 10 or greater, and polishing the organosilicate layer using the slurry, as recited in amended claim 19. Applicants respectfully request withdrawal of the rejection of claim 19 and of claims 21, 25-29, which depend thereon.

Regarding claim 30, Applicants submit that *Homma, et al.* does not teach or suggest polishing an organosilicate layer with a slurry including about 22% by weight to about 30% by weight of silica. Furthermore, as discussed above, *Homma, et al.* does

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not teach or suggest polishing an organosilicate layer with a silica containing slurry having a pH of about 10 or greater or polishing an organosilicate layer with a silica containing slurry including KOH. Applicants further submit that *Homma, et al.* does not teach or suggest polishing an organosilicate layer with a slurry including ammonium hydroxide (NH₄OH).

Therefore, *Homma, et al.* does not teach, show, or suggest a method for planarizing an organosilicate layer, comprising positioning a substrate having an organosilicate layer thereon in a polishing system, providing a slurry including silica as an abrasive material having an average particle size greater than about 35 nm and dispersed in a solvent and potassium hydroxide (KOH) or ammonium hydroxide (NH₄OH) to the polishing system, wherein the slurry has a pH of about 10 or greater and the concentration of the abrasive material in the slurry is within a range of about 22% by weight to about 30% by weight, and polishing the organosilicate layer using the slurry, as recited in amended claim 30. Applicants respectfully request withdrawal of the rejection of claim 30 and of claims 35-36, which depend thereon.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the Final Office Action and that a detailed discussion of the secondary references is not necessary for a full and complete response to this Final Office Action.

Having addressed all issues set out in the Final Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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